

## **ENVIRONMENTAL OFFSET PROPOSAL**

### **Croda Inc.**

Croda's Environmental Offset Proposal is a combination of voluntary environmental improvement projects, and acquired emission credits from the Delaware Economic Development Office (DEDO).

The environmental impacts of Croda's Ethylene Oxide project will principally be air emissions. In discussions with DNREC Coastal Zone staff, Croda was advised that the following emission constituents will have to be offset: nitrous oxides (NO<sub>x</sub>), volatile organic compounds (VOC), sulfur dioxide (SO<sub>2</sub>), and particulates (TSP). The voluntary improvement projects and emission credits will directly offset the air emissions by a factor of 1.3 to 1.0. Other environmental impacts are minimal. However, where necessary, other voluntary environmental improvements are identified so that the project "clearly and demonstrably" offsets any other actual or perceived impacts from the project.

As shown in the Coastal Zone Environmental Impact Offset Matrix (Attachment H) and the accompanying tables Croda has identified voluntarily installed projects that have reduced emissions of nitrous oxides (NO<sub>x</sub>), volatile organic compounds (VOC), sulfur dioxide (SO<sub>2</sub>), and particulates. These are permanent improvements many with equipment life expectancies of up to 20 years or more.

Based upon the estimated air emissions shown in Section 6.1, and DNREC's requirement that nitrous oxides (NO<sub>x</sub>), volatile organic compounds (VOC), sulfur dioxide (SO<sub>2</sub>), and particulates must be offset by a factor of 1.3 to 1, Croda must offset 10.4 tpy of air emissions. The voluntary improvement projects listed in Table 1 amount to 3.9 tpy. That, combined with 7 tpy of acquired emission offset credits from DEDO, will more than offset this project's air emissions.

The other minor impacts in additional water use and Croda's proposed offsets are referenced in the Offset Matrix (Attachment H) and the accompanying tables and are displayed in Attachment I.

The letter documenting the acquisition of offset emission credits from the Delaware Economic Development Office is included in Attachment J.